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L5: Entry 1 of 3

File: USPT

Nov 24, 1998

DOCUMENT-IDENTIFIER: US 5840019 A

TITLE: Graphic presentation chart of medical tests for a patientAbstract Text (1):

A graphic presentation chart of medical tests for a patient which is simple, easy to read, and complete includes at least one horizontally extending row having a plurality of individual boxes. Each of the boxes of the row is provided with indicia representing a particular medical test, and indicia representing an associated date for the respective medical test. The graphic presentation chart further includes a process for converting numerical medical test data from a plurality of medical tests into graphic form and displaying the graphic form in each of the boxes to thereby produce the graphic presentation chart.

Brief Summary Text (4):

This invention relates in general to medical tests for a patient and in particular to a graphic presentation chart of such medical tests.

Brief Summary Text (5):

The demands on today's physicians are constantly increasing. In a typical day, a physician can review approximately 35 pages of medical test reports a patient, or a total of approximately 450 pages of medical test for all patients that are seen. The information contained in the test reports is important to the physician treating the patient. Unfortunately, the review of the multitude of pages of tests reports is time consuming and difficult. Thus, it would be desirable to provide an improved display of medical tests for a patient which is simple, easy to read, and complete.

Brief Summary Text (7):

This invention relates to a graphic presentation chart of medical tests for a patient which is simple, easy to read, and complete. The graphic presentation chart includes at least one horizontally extending row having a plurality of individual boxes. Each of the boxes of the row is provided with indicia representing a particular medical test, and indicia representing an associated date for each of the respective medical tests. The graphic presentation chart further includes means for converting numerical medical test data from a plurality of medical tests into graphic form and displaying the graphic form in each of the boxes to thereby produce the graphic presentation chart.

Drawing Description Text (2):

FIGS. 1A and 1B is a first embodiment of a graphic presentation chart of medical tests for a patient having tests written but prior to any test results being available in accordance with the present invention.

Drawing Description Text (3):

FIG. 2 is a second embodiment of a graphic presentation chart of medical tests for a patient showing the tests results for a number of various medical tests for the patient in accordance with this invention.

Drawing Description Text (4):

FIGS. 3A and 3B is a third embodiment of a graphic presentation chart of medical

tests for a patient showing the tests results for a number of various medical tests for the patient in accordance with this invention.

Drawing Description Text (5):

FIGS. 4A, 4B, 4C, 4D and 4E is a fourth embodiment of a graphic presentation chart of medical tests for a patient showing the test results for a number of various medical tests for the patient in accordance with this invention.

Detailed Description Text (2):

Referring now to the drawings, there is illustrated in FIGS. 1A and 1B a graphic presentation chart, indicated generally at 10, of medical laboratory tests for a patient prior to any test results being available in accordance with the present invention. As shown therein, the chart 10 is an example of a first day of admission of a patient to a hospital. The chart 10 includes a plurality of horizontally extending rows, indicated generally at 11, 12, 13, 14, and 15. Each of the rows 11, 12, 13, 14, and 15 is provided with a plurality of individual boxes. In particular, row 11 includes boxes 11A through 11K, row 12 includes boxes 12A through 12K, row 13 includes boxes 13A through 13K, row 14 includes boxes 14A through 14I, and row 15 includes boxes 15A through 15J.

Detailed Description Text (7):

FIG. 2 is a graphic presentation chart, indicated generally at 20, showing the test results for a number of various medical tests for a patient over a particular time period in accordance with this invention. In particular, the chart 20 includes the three rows, namely rows 21, 22, and 23, for displaying test results for a patient for a time period Dec. 11, 1995 through Jan. 5, 1996. Row 21 includes boxes 21A through 21D, row 22 includes boxes 22A through 22G, and row 23 includes boxes 23A through 23G. Each of the respective boxes 21A through 21D, 22A through 22G, and 23A through 23G is provided with indicia at the lower right hand corner thereof representing a particular medical test, some of the tests being denoted using known medical terminology.

Detailed Description Text (13):

FIGS. 4A, 4B, 4C, 4D, and 4E is a graphic presentation chart, indicated generally at 40, having a plurality of rows, namely rows 41 through 50, for displaying the test results for a patient for a number of various medical tests for the month of December 1995. Row 31 includes boxes 31A through 31M, row 32 includes boxes 32A through 32L, row 33 includes boxes 33A through 33L, and row 34 includes boxes 34A through 34M. Each of the respective boxes 31A through 31M, 32A through 32L, 33A through 33L, and 34A through 34M is provided with indicia at the lower right hand corner thereof representing a particular medical test, some of the tests being denoted using known medical terminology. Also, other means can be used to designate the test results for the chart 40. In addition, some of the boxes can include information which is not graphically displayed. For example, boxes 44D, 45E, 45F, 45G, 49A through 49G, and 50A include relevant patient information which is not displayed in a bar graph form.

CLAIMS:

1. A method for producing a graphic presentation chart of medical tests for a patient comprising the steps of:

- (a) ordering a plurality of medical tests for a patient;
- (b) obtaining numerical medical test data for the plurality of medical tests;
- (c) converting the numerical test data for the plurality of medical tests into a graphic form; and
- (d) displaying the graphic form for the plurality of medical tests in a graphic

presentation chart, the graphic presentation chart including at least one horizontally extending row having a plurality of individual boxes each of the boxes provided with first indicia to indicate a name of the ordered medical tests, second indicia to indicate an associated date for the ordered medical tests, third indicia to indicate test results for the ordered medical tests, fourth indicia to indicate a value for the test results for the ordered medical tests, fifth indicia to indicate non-ordered medical tests for a patient, and sixth indicia to indicate ordered medical tests for the patient which tests results are not available.

7. A method for producing a graphic presentation chart of medical tests for a patient comprising the steps of:

- (a) ordering at least one medical test for a patient;
- (b) not ordering at least one medical test for a patient;
- (c) obtaining numerical medical test data for the at least one ordered medical test;
- (d) converting the numerical test data for the at least one ordered medical test into a graphic form; and
- (e) displaying the graphic form for the at least one ordered medical test in a graphic presentation chart, the graphic presentation chart including at least one horizontally extending row having a plurality of individual boxes, each of the boxes provided with first indicia to indicate a name for the at least one ordered medical test, second indicia to indicate an associated date for the at least one ordered medical test, third indicia to indicate test results for the at least one ordered medical test, fourth indicia to indicate a value for the test results for the at least one ordered medical test, and fifth indicia to indicate a name for the at least one non-ordered medical test.

12. A method for producing a graphic presentation chart of medical tests for a patient comprising the steps of:

- (a) ordering at least one medical test for a patient;
- (b) not ordering at least one medical test for the patient;
- (c) obtaining numerical medical test data for the at least one ordered medical test;
- (d) converting the numerical test data for the at least one ordered medical test into a graphic form; and
- (e) displaying the graphic form for the at least one ordered medical test in a graphic presentation chart, the graphic presentation chart including first indicia for indicating test results for the at least one ordered medical test and second indicia for indicating a name for the at least one non-ordered medical test.

Freeform Search

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Term:

L2 and (report near patient near test)

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DATE: Saturday, April 03, 2004 [Printable Copy](#) [Create Case](#)

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<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
<u>L5</u>	L2 and (report near patient near test)	3	<u>L5</u>
<u>L4</u>	L2 and (access\$ near patient near test)	5	<u>L4</u>
<u>L3</u>	L2 and (access\$ near patent near test)	0	<u>L3</u>
<u>L2</u>	L1 and (patient near test)	203	<u>L2</u>
<i>DB=USPT; PLUR=YES; OP=OR</i>			
<u>L1</u>	(patient near information)	3323	<u>L1</u>

END OF SEARCH HISTORY

Print Request Result(s)

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Number of Copies Printed : 1

- US006192112: Ok
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L4: Entry 3 of 5

File: USPT

Jul 11, 2000

DOCUMENT-IDENTIFIER: US 6088429 A
TITLE: Interactive telephony system

Abstract Text (1):

Interactive medication data systems and methods are provided which include automated means for providing information pursuant to telephonic and electronic requests from callers. The system includes a database containing information for patients and a variety of medications, a host system database containing prescription data for these medications, and means for receiving an incoming audio communication relating to a request for information concerning a specific medication. The audio communication contains a unique personal identifier which can be mapped to one patient in the host system database. The system then prompts the caller with a menu of selections relating to the patient's active prescriptions, such as, refill or dosage requirements. The caller then selects an option which produces a selection signal. The selection signal guides the system to look for specific data in the database and the system produces an audio or visual response to the caller.

Detailed Description Text (15):

One or more databases 214 are used by the exemplary system 300. At least one database 214 contains information representing attributes of each of a plurality of patients. Preferably, this database is organized to provide a "patient profile" which includes a variety of data relating to the patient's health, conditions, treatment plan, medical history and a list of medications taken by the patient. The medications may further be categorized as: active (currently being taken) or inactive (not currently being taken), and prescription or non-prescription. The database may be a distributed database. Alternatively, the desired information for the patient's profile may be stored in a plurality of different databases accessible by the system 300. For example, a patient's history of prescription medications may be stored in a distributed database including database 214 and external host database 216. Alternatively, the data may be concatenated from a plurality of databases, including a pharmacy database 224, a medication and diagnosis database 226, a treatment plan database 228 or other database 230, which may include lab test information, practice information, inpatient status and location or billing and appointment information.

Detailed Description Text (51):

In addition to pharmacy functions, the caller (i.e., person) calling a system according to this invention can select one of a plurality of functions relating to other information on the patient's active profile on the host system without inputting further identifiers. For example, the caller might select to receive diagnosis and treatment information found in a patient's active profile. Given a database with pre-recorded information concerning diagnosis and treatment that can be mapped to the diagnosis and treatment signals on the host system database for the patient, the system can provide the caller the requested information. The caller specifies whether information relevant to the disease condition is to be provided, including the treatment plan and dietary plans and other recommendations for the patient's condition and health. The IVR system provides information about the diagnosis and treatment plans. A status report could also be automatically provided to the physician, so that he or she knows that the patient has requested

Detailed Description Text (58):

For example, the menu of options may include (1) refill or renew prescription, (2) check on refill status, (3) get educational information about patient's (a) medications, (b) diagnosis information, (c) treatment plans, (d) patient's status, etc. The caller next selects the desired function 220. Using the unique identifier as a key, the system searches the external host system database, or databases, to retrieve relevant information from the patient's active profile 216. If the caller selects a pharmacy function such as prescription refills, renewals, or refill status functions, he or she can select from active prescriptions from a host system for a particular patient, or use voice recognition to select data from the active medications for that patient. The list of medications can be spoken out first for the caller to select an item from, for example, for CYLERT, press 1, for TRYPTOPHAN, press 2, etc. The system then posts the refill, renewal and status request to the pharmacy host system 224 and the results, if any, are returned to the caller, or provides the caller with educational information about the medication identified.

Detailed Description Text (60):

Additionally, other information in the patient's active profile can be selected from the function menu 220. For this other information, which could include patient histories, blood type, family histories and other medical information, the patient can select an individual item from the active profile 236 which triggers the system to search for this other information on the patient's active profile in the host system database, or similar database 230, and respond in kind.

Detailed Description Text (64):

Televox, Inc. run as stand-alone systems without host interaction. They typically require patients to enter a topic identifier referred to as a "PIN" as well as their patient ID. These systems require the health care organization to give the patient a PIN for each instance in which the practice may deliver a message to the patient. The organization must then track that PIN and use it to post a message for the patient. For example, each time the patient gets a lab test, a new PIN is provided to the patient. When posting information for the patient, these prior systems require the health care organization to call the system and manually enter the topic PIN.

Detailed Description Text (69):

The invention eliminates a source of constant interruptions for providers and staff,. freeing them to focus their attention where it is needed most--on patients in the office. Record test results any time, from any phone. Allow patients to access test results 24 hours a day, 7 days a week. The invention "does the talking" when patients call to learn laboratory test results. By handling frequent calls from patients anxious to receive lab test results, the invention reduces constant interruption. The invention answers the calls and speaks a personal test result message--automatically. Productivity goes up, and patients have more quality time with their providers.

Detailed Description Text (71):

Providers and authorized personnel can record patients' test result messages at their convenience, from any telephone. Standard messages for routine results can be recorded once, saved, and re-used. Any authorized provider can assign these messages to patients with identical lab test results or add a personal message, as needed.

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L4: Entry 2 of 5

File: USPT

Feb 20, 2001

DOCUMENT-IDENTIFIER: US 6192112 B1

TITLE: Medical information system including a medical information server having an interactive voice-response interface

Abstract Text (1):

A system for providing medical information to a patient is provided. The system includes a medical information server, including a software engine, coupled to a memory location. The memory location stores a plurality of voice mailboxes. A voice mailbox includes at least two segments. A first segment for test results, or an upload-source note, and a second segment for account owner information, or a chart note. An upload-source, such as a testing facility or laboratory, is coupled to the server and provides test results to the mailbox. An interactive voice response (IVR) software interface is also coupled to the engine. The IVR provides the medical information in the mailbox responsive to a user input. The system may also include a patient database. Further, the engine generates alerts to the account owner based upon particular events. The system is also configured to prevent conflicting accesses by users. The system is convenient to use due to reporting features and an identifier function used to locate particular voice mailboxes.

Parent Case Text (2):

This application is a continuation-in-part of application Ser. No. 08/581,749, METHOD AND APPARATUS FOR AUTOMATED PATIENT INFORMATION RETRIEVAL, Seymour A. Rapaport, M.D., Jeffrey A. Rapaport et al., filed Dec. 29, 1995 now U.S. Pat. No. 5,926,526.

Brief Summary Text (5):

U.S. Patent Application entitled, "Method and Apparatus for Automated Patient Information Retrieval," Seymour A. Rapaport, M.D., Jeffrey A. Rapaport et al., filed Dec. 29, 1995 referenced above and incorporated by reference, describes an approach for patient information retrieval that significantly eases this work and can allow essentially complete reporting of test results to the patients in a professional practice. The approach described there increases the medical provider's efficiency and effectiveness in accomplishing the test result reporting task many fold. However, despite the fact that the provider's medical practice and patient care is significantly improved in that it is possible for essentially all tests to be reported, the provider must accomplish some added tasks, and therefore there are some added demands on the provider's time.

Brief Summary Text (7):

The present invention streamlines the provider's tasks so that the provider is involved time-wise only to the extent that he or she wants to and has to be. This results in essentially complete reporting of patient tests and other appropriate patient messages in the medical practice with little added efforts on the providers' part and improved patient care and safeguards to patients' health.

Brief Summary Text (16):

According to one aspect of the present invention, a system for providing medical information to a patient is provided. The system comprises a medical information software engine. A memory location having a voice mailbox is coupled to the engine. The voice mailbox is accessible by the patient, the upload-source, such as a

laboratory test facility, and the account owner, such as a medical provider. The voice mailbox includes a first segment for storing a patient message for the patient, a second segment for account owner information supplied by the account owner, and a third segment for storing upload-source information, such as test results. The upload-source is coupled to the medical information software engine and may provide the test results. An interactive voice response system interface is coupled to the medical information engine and the voice mailbox. The interface provides the account owner information in the second segment responsive to an account owner input.

Detailed Description Text (8):

(3) Upload-source: The upload-source transfers patient test results and other information to the system using electronic data transfer.

Detailed Description Text (25):

A. Patient-retrieval alert: Either an account owner or an upload-source may request notification in the event that a patient does not retrieve a patient message within a deadline specified when setting the alert. In this situation, the system fulfills the request by activating an alert signal and delivering the alert signal to the account owner and/or upload-source. This alert serves to notify the account owner and upload-source of important results not successfully communicated to the patient so that other means and efforts may be undertaken to notify patient of their test results.

Detailed Description Text (40):

H. Compliance alert (for accounts without Patient Database access): This is an alert set by the account owner when the test is ordered. The system will activate this alert if a patient message or upload-source note has not been placed in the mailbox within the deadline specified when setting the alert. A compliance alert may be activated, for example, as a result of the patient not having the test done or if the test specimen is lost, since the test results won't be entered if these events occur. This may also be used to notify the account owner if the test result is not entered into the system by the time that the account owner informed the patient the test result would be available. This alert type is needed since at times an account owner may order a test that is important to be done timely and/or the account owner may feel that the patient may not comply with having an important test done.

Detailed Description Text (43):

Thus, in an embodiment, the medical information server allows an account owner to place a completion notification request (CNR) for a patient's test result. The account owner provides a CNR identifying signal or number when the chart note is placed. The CNR identifying signal or number is unique to that chart note and the associated test and patient. The account owner at the time of generation of the CNR specifies a time limit in days to determine the CNR deadline. The account owner then transmits the unique CNR identifying signal or number to the upload-source. When the mailbox information is uploaded, the CNR allows identification of the mailbox so that the completion alert is activated for the account owner for the corresponding medical information. If no information is uploaded into the mailbox by the CNR deadline, then a compliance alert is activated for the mailbox.

Detailed Description Text (45):

J. Trace alerts (for accounts with Patient Database access): An account owner can choose to activate a trace for a patient at the time that a chart note is recorded. The account owner will specify a deadline in days for the trace which is used to determine the trace deadline. In the length of time prior to the trace alert deadline, whenever a mailbox is uploaded for this patient the account owner will receive a trace alert indicating a mailbox was uploaded. If more than one account has a trace set for a patient, each account will receive a trace alert for each mailbox uploaded. If no mailbox has been uploaded prior to the trace alert

deadline, then a trace alert indicating this fact will be activated for the account and the trace alert setting will be removed. Each trace alert will have a status flag that indicates whether or not patient information was uploaded into the mailbox.

Detailed Description Text (46):

These alert communications can be via fax report, electronic mail, ASCII data file, sound file, voice file, voice mail, or other means and can include the patient name and name of the account owner and/or upload-source that set the alert information and/or entered information in the patient mailbox.

Detailed Description Text (67):

(25) PSC "Patient Security Code" (accounts with PD access only)--a series of numeric digits used to secure access to a patient's test results that is unique within the PD. The PSC may consist of two parts. Part A is a fixed length of digits for all patients in the PD. Part B can be variable length (up to 20 digits) and is typically used if Part A is not unique in the PD, But Part A and Part B together are unique to the PD.

Detailed Description Text (123):

Block 501 illustrates a GUI of an Electronic Chart Software Screen. The screen contains a plurality of informational display screens and control buttons to facilitate information delivery and receipt. Screen segment 502 represents a patient information screen that displays pertinent information regarding a patient. Screen segment 503 represents the patient chart screen, where information on patient's medical chart is displayed. Screen segment 504 represents a patient message screen where information regarding messaging to the patient is displayed utilizing the Medical Information Server 100; uploaded test results may be represented as text here or accessed by sound device. Screen segment 508 represents patient messages suggested by an expert system in response to the test results represented in screen segment 504. An account owner may click on these to load the results into the appropriate mailbox. Buttons represented by blocks 505 and 506 are used to control content of patient chart screen 502 and patient info screen 504.

Detailed Description Text (124):

A user can extract information from the patient screen and use other input to place a patient message into a patient mailbox in server 100 by patient-message-send button represented by block 507. Button 507 allows electronic chart software to extract information from patient message screen as well as user input to place a patient message in medical information server 100 into a patient mailbox. The results of patient message delivery, including alert information are reported in patient information screen 504.

Detailed Description Text (159):

The engine allows pre-recorded patient messages to be accessed through patient pre-recorded message codes from a patient pre-recorded message code collection. Codes and messages may be added or deleted from this collection. The engine can check if a particular patient pre-recorded message code entry exists and respond appropriately. The patient pre-recorded message collection contains fields for each patient pre-recorded message code specifying if the patient pre-recorded message code is active or not on the system, is time sensitive, and if the pre-recorded message requires patient message digits or has custom recorded segment which is played after the patient pre-recorded message to specify test result values, a time for an appointment, or other patient information.

Detailed Description Text (445):

FIG. 6 illustrates a logic flow diagram of a patient obtaining a medical message on Server 100 illustrated in FIG. 1. The patient, for example, contacts Server 100 using a touch-tone telephone through central office via POTS line represented in 201a. An account owner may similarly access Server 100 to access or place

information or patient messages. While the preferred embodiment of the present invention interface is described using a touch tone telephone for accessing and inputting information, other forms of electronic information and entry means such as voiced information recordings, voice commands, and/or electronic data files may be inputted or received by a user to access, record information, control, or otherwise use Server 100.

Detailed Description Text (461):

FIG. 8 illustrates a logic flow diagram of an account owner or system administrator entering the automated patient information retrieval system. Control is received from logic block 633 illustrated in FIG. 6 and transferred to logic block 802 where the user is requested to enter a security code. The system determines in logic block 803 if 5 digits or "#" plus 5 digits was entered by the user; if not, control is transferred to logic block 819 where a determination is made whether or not "****" was entered block 803. If not, control passes to logic block 860 prior to being transferred to logic block 930 illustrated in FIG. 9. If "****" was entered in logic block 819 control is transferred to logic block 881 prior to being transferred to logic block 2601 of the administrator menu illustrated in FIG. 26. On return of control from the logic illustrated in FIG. 26 to logic block 881 control is transferred to logic block 612 in illustrated in FIG. 6 for hang up through logic blocks 882, 862, and 633.

CLAIMS:

1. A system for providing medical information to a patient, comprising:

- (a) a medical information server;
- (b) a memory location having a voice mailbox, coupled to the medical information server, wherein the voice mailbox includes a first segment for storing account owner information accessible by the account owner, and a second segment for storing upload information;
- (c) an upload-source, coupled to the medical information server, for providing the upload information in the second segment of the mailbox;
- (d) an interactive voice response ("IVR") interface, coupled to the medical information server and the voice mailbox, for providing the account owner information in the first segment responsive to an account owner input;

wherein the mailbox has an associated plurality of memory locations, for storing a respective plurality of alert fields associated with a respective plurality of alerts, and wherein the server generates a sorted list of alerts responsive to the server modifying the alert type information; and,

wherein a first alert type in the plurality of alerts is a patient-retrieval alert and an associated field is a patient-retrieval alert deadline value, wherein the server adds the patient-retrieval alert to the list responsive to a comparison of the alert deadline value to a present time.

2. A system for providing medical information to a patient, comprising:

- (a) a medical information server;
- (b) a memory location having a voice mailbox, coupled to the medical information server, wherein the voice mailbox includes a first segment for storing account owner information accessible by the account owner, and a second segment for storing upload information;
- (c) an upload-source, coupled to the medical information server, for providing the

upload information in the second segment of the mailbox;

(d) an interactive voice response ("IVR") interface, coupled to the medical information server and the voice mailbox, for providing the account owner information in the first segment responsive to an account owner input;

wherein the mailbox has an associated plurality of memory locations, for storing a respective plurality of alert fields associated with a respective plurality of alerts, and wherein the server generates a sorted list of alerts responsive to the server modifying the alert type information; and,

wherein a first alert type in the plurality of alerts is an upload-source-change alert and an associated field is an upload-source-change alert field, and wherein the server adds the upload-source-change alert to the list responsive to information loaded into the voice mailbox from the upload-source and an account owner accessing the voice mailbox.

3. A system for providing medical information to a patient, comprising:

(a) a medical information server;

(b) a memory location having a voice mailbox, coupled to the medical information server, wherein the voice mailbox includes a first segment for storing account owner information accessible by the account owner, and a second segment for storing upload information;

(c) an upload-source, coupled to the medical information server, for providing the upload information in the second segment of the mailbox;

(d) an interactive voice response ("IVR") interface, coupled to the medical information server and the voice mailbox, for providing the account owner information in the first segment responsive to an account owner input;

wherein the mailbox has an associated plurality of memory locations, for storing a respective plurality of alert fields associated with a respective plurality of alerts, and wherein the server generates a sorted list of alerts responsive to the server modifying the alert type information; and,

wherein a first alert type in the plurality of alerts is a compliance alert and an associated field is a compliance alert deadline value, and wherein the server adds the compliance alert to the list of alerts responsive to the upload-source storing test results in the mailbox and a comparison between the compliance alert value and a present time.